

Clean Version of all Pending Claims

9. (Twice amended) A method for operating a fixed bed reactor for reacting a feedstock in which the feedstock is contacted with a fixed bed of catalytic material contained in said reactor, said fixed bed of catalytic material having a top and bottom layer, and wherein during operating of said fixed bed reactor, there is a pressure drop across said top layer of said fixed bed of catalytic material and wherein the pressure drop across said top layer of said fixed bed of catalytic material increases during reaction of said feedstock due to fouling of said top layer of said fixed bed of catalytic material, the method comprising: (a) introducing said feedstock into said fixed bed of catalytic material, wherein a majority of said feedstock will flow through said top layer of said fixed bed of catalytic material and (b) as said top layer of said fixed bed of catalytic material fouls, bypassing an increasing amount of said feedstock to said bottom layer of said fixed bed of catalytic material.

10. The method of claim 9 wherein said feedstock is selected from the group consisting of liquid feed, vapor feed, and mixtures thereof.

11. The method of claim 9 wherein said feedstock is selected from the group consisting of hydrocarbon feedstocks, chemical feedstocks, and mixtures thereof.

12. (New) A method for extending the operating life of a fixed bed reactor, the method comprising:

providing a reactor comprising a fixed bed;

partitioning said fixed bed into a top layer and a bottom layer;

introducing a feedstock into the fixed bed and as said top layer fouls bypassing an increasing amount of said feedstock to said bottom layer.

13. (New) The method of claim 12, wherein said bypassing step includes positioning a bypass device in the fixed bed, said bypass device comprising:

a cage positioned within said fixed bed, said cage having a plurality of perforations; and

a bypass tube in fluid communication with said cage, said bypass tube protruding from said cage above said fixed bed for bypassing an increasing amount of said feedstock around said top layer of said fixed bed as it fouls through said bypass tube into said cage and out from said cage through said perforations into said bottom layer of said fixed bed.